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A Randomized Control Trial of a Community Mental Health Intervention for Military Personnel

PRINCIPAL INVESTIGATOR:

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14. ABSTRACT
This research study tested whether a military adaptation of the Mental Health First Aid (mMHFA) program changes knowledge about and attitudes toward mental health in the military, stigma associated with mental health issues, and use of appropriate referral and support practices for helping someone in need. Phase one of the study consisted of developing the military and veterans module for MHFA. Phase two consisted of a pilot study with four armories from the Kansas Army National Guard. Pilot study results were mixed, with clear trends showing enhanced knowledge, attitudes, behaviors, and confidence and reduced stigma among people who took the training. However, there were no intervention effects detected at the community level based on a random survey of guard members in each armory. Overall, the study results indicate that the military and veterans MHFA intervention is acceptable and feasible for National Guard armories, and is a promising intervention that warrants further study in a larger cluster randomized controlled trial to detect intervention effects.

15. SUBJECT TERMS
Mental health literacy, Mental Health First Aid (MHFA), curriculum adaptation

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INTRODUCTION:

This research study tested whether a military adaptation of the Mental Health First Aid (mMHFA) program changes knowledge about and attitudes toward mental health in the military, stigma associated with mental health issues, and accessing care and support resources for mental health problems among military personnel. Phase one of the study included development of the military-specific MHFA training module. Phase two was a pilot study of the intervention including two groups of individuals: Community First Responders (CFRs) and Kansas Army National Guard (KSARNG) service members. CFRs are individuals (including Guard Members in support positions) who interact with Kansas Army National Guard service members on a routine basis to provide mental and emotional support. The pilot study included four armory communities and CFRs in the intervention group received training in mMHFA.

KEYWORDS: National Guard; Mental Health First Aid; Mental Health Literacy; Pilot Study; Veterans; Mental Health; Prevention; Access; Stigma

OVERALL PROJECT SUMMARY:

Phase 1: Develop military-specific MHFA training module

Convene Expert Panel and form Adaptation Taskforce
An Expert Panel was convened in October 2010 to advise on the adaptation of the MHFA training module. Panelists included:

> LTC Dennis McGurk
> Chief, Research Transition Office
> Walter Reed Army Institute of Research
>
> Katharine W. Nassauer, Ph.D.
> Senior Scientist, Psychological Health and Resilience
> General Dynamics Information Technology
> United States Army Medical Research and Materiel Command (USAMRMC)
> Military Operational Medicine Research Program (MOMRP)
>
> MAJ Robert Stinson
> Chief, Workforce Support
> Kansas Army National Guard (KSARNG)
>
> Jay Shore, M.D. (Co-PI)
> Associate Medical Director, Colorado Physicians Health Program
> Subject Matter Expert and Psychological Health Portfolio Manager, Telemedicine and Advanced Technology Research Center (TATRC), U.S. Army Medical Research and Material Command (USAMRMC)

The Adaptation Taskforce was formed in November 2010. There was a change of project manager in June 2011 and additional taskforce members added at that time, which contributed to a delay in the project timeline. The taskforce included subject matter experts with specific knowledge of the military/veteran population, creating training curriculum, the existing Mental Health First Aid program, and the landscape of military programs that provide support, training, and assistance to service members and their families.

Consult with expert panel

The panel met by conference call periodically through April 2011 to inform the initial phase of the adaptation process. Additionally, members of the Expert Panel and other subject matter experts were engaged throughout the research period to advise on the adaptation, IRB, and research protocol.

Develop military-specific module with Adaptation Taskforce and input from Expert Panel
The adaptation of the Mental Health First Aid curriculum for use with the military/veteran population included the addition of supplemental material relevant to mental health issues in the military/veteran population and military-specific videos and exercises, as well as provided context for the various mental health issues when interacting with service members, veterans, and their families. The work products included an adapted PowerPoint slide deck, instructor notes, and supplemental materials such as resource lists and scenarios.

The Investigators maintained regular contact with the National Council for Behavioral Health, the organization that leads the management, operation, and dissemination of Mental Health First Aid in the United States, about the adaptation process and timeline, as well as with subject matter experts around focus areas such as Traumatic Brain Injury.

A series of 3 pilot trainings were conducted in Arizona in partnership with the Arizona National Guard and the Arizona Coalition for Military Families. Pilot training participants included a mix of service members, family members, and Community First Responders. Feedback from pilot training participants helped inform finalization of the curriculum.

Finalize mMHFA program
The final version of the military adaptation of the Mental Health Frist Aid program was completed in April 2013 and submitted to the National Council for Behavioral Health. The adaptation was approved for use in this study and pending finalization for wider scale roll out through their national network of trainers. Separate from this study, a decision was made by the National Council to shift the main MHFA curriculum from a 12-hour (2-day) format to an 8-hour (1-day) format. While this change did not impact the study trainings, which were completed before the shift took place, it required some follow up work on the mMHFA adaptation to fit with the new 8-hour format.

These revisions were completed in September 2013 and submitted to the National Council. The curriculum was finalized and formatted into an adapted slide deck and new instructor manual. Members of the study team then assisted with delivering a webinar to the existing network of MHFA instructors, to walk them through the curriculum changes and specific guidance relating to training focused on the military and veteran population. This webinar was recorded and is now available to be viewed by any MHFA instructor that qualifies to deliver the mMHFA adaptation. Instructors must have a direct connection with the military (service member, veteran or family member) and/or have training and experience working with this population.

Develop survey tool and data collection procedures with input from Expert Panel
Two surveys were developed: 1) a survey of community first responders to measure outcomes from the training in comparison to a control group of similar Guard and community members; 2) a quick poll for KSARNG members to assess community-level impacts of the intervention. CFRs survey and quick polls were developed by the study team in consultation with subject matter experts, IRBs, and KSARNG. Each survey includes scales or single items to assess the impact of the intervention on key constructs related to testing the study hypotheses. The surveys were designed to be brief so as to minimize the impact of the study on participants, while still providing sufficient preliminary data on program efficacy in preparation for a clinical trial.

Phase 2: Conduct a Pilot Study mMHFA in collaboration with Kansas National Guard communities

MHFA has been shown to be effective in improving participants' knowledge of mental disorders, reducing stigma, and increasing the amount of help provided to others.[1-4] Individuals who have undergone MHFA training show better identification of mental health disorders,[2] greater likelihood of advising individuals to seek professional help,[3] decreases in stigmatizing attitudes,[1] and improved mental health in the participants themselves.[1, 3] These effects are present in both urban and rural areas, although rural areas tend to show greater benefits of MHFA training.[2]

The improved help to persons suffering from mental illnesses, reduced stigma, and larger positive effects of MHFA training in rural relative to urban areas suggest MHFA, adapted for a military population, may have a large impact on mental health outcomes among returning National Guardsmen, many of whom live in rural areas where public health education programs that minimize the barriers to treatment are minimal or nonexistent. With 1.64 million service members deployed in support of OEF/OIF, it is estimated that approximately 300,000 individuals currently suffer from PTSD, and another 320,000 from TBI.[5] In the military, nearly half of all cases of behavioral health problems are untreated,[5] an issue compounded by a strong stigma towards behavioral health issues among military personnel.[6] For National Guard service members, rates of untreated problems may be higher given their limited access to health care compared to other military personnel.[7] Identifying an effective intervention to reach these service members has the potential to have a major impact on the health of these individuals. In addition to the direct health benefits, an effective intervention would likely have broader societal effects on employment and productivity, marital relationships, and parenting and child outcomes.[5] The proposed project therefore has the potential for a major impact on both the current health and future well-being of military personnel and their communities.
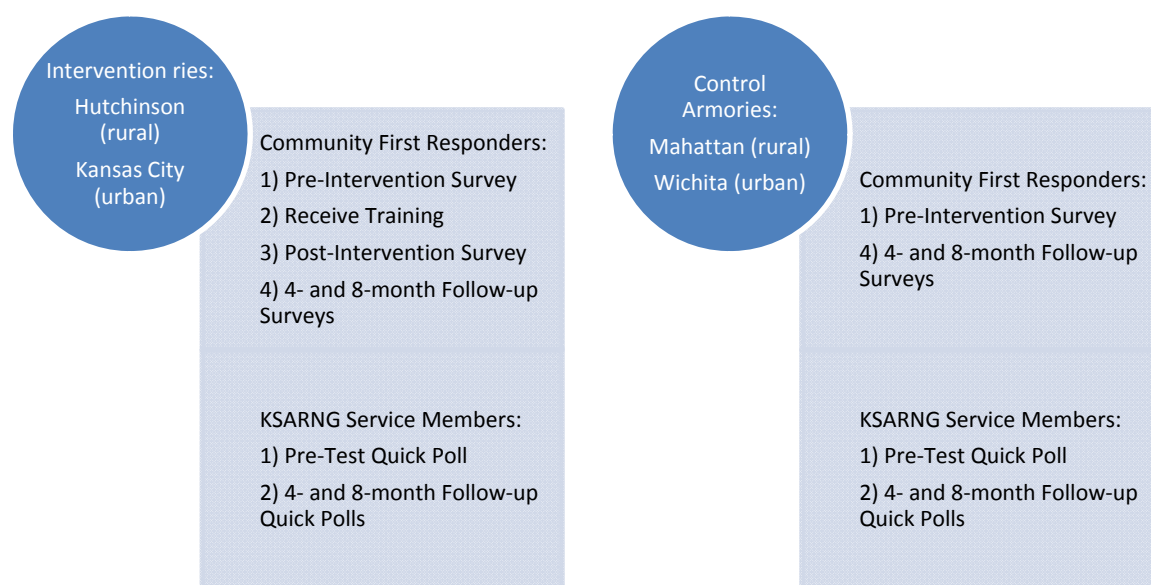
Overview of Study Design and Hypotheses
To test whether the newly developed military-specific module to MHFA is a promising and feasible intervention for replicating prior MHFA research within U.S. military and veteran populations, WICHE conducted a comparative outcomes trial with four Kansas Army National Guard (KSARNG) armories. Although not a full-scale clinical trial, the study was critical to assessing the acceptability of the new intervention among U.S. military and veteran personnel and the feasibility of achieving and measuring the expected outcomes using the methods approved by the Expert Panel and KSARNG. The pilot study was designed to develop preliminary evidence of the efficacy of the intervention at improving individual and community-level mental health outcomes. The hypotheses we tested include:

1) Relative to Community First Responders (CFRs) that do not receive military Mental Health First Aid (m-MHFA) training, CFRs that receive m-MHFA training will show:
    a. increased knowledge of mental health resources, self-perceived ability to help with a mental health problem, and likelihood of using MHFA practices;
    b. more positive attitudes towards mental health help seeking;
    c. decreased stigma; and
    d. increased helping behaviors and referrals to mental health services.

2) Relative to National Guard personnel living in Armory communities where no CFRs received m-MHFA training, Guard living in Armory communities where CFRs did receive m-MHFA training will show:
    a. Decreased stress and stigma;
    b. Increased coping resources and knowledge of mental health resources; and
    c. More positive opinions towards help seeking.

To test the efficacy of the military module of MHFA, we employed a comparative outcomes design with four matched armories. Two armories were assigned to receive the intervention and two to the control comparison group. The intervention and control armories were matched on rurality, such that in each condition (intervention or control) there was one urban and one rural armory. Prior to the implementation of the intervention, WICHE conducted pre-test assessments with each armory, including a survey of community first responders (CFRs) and an anonymous quick poll of National Guard personnel present during drills. At four and eight months post intervention these same assessments were repeated. Additionally, the CFRs who received the training (i.e., from intervention armories) completed the CRF survey immediately after receiving the MHFA training. Pre-intervention CFR surveys, immediate post-intervention CFR surveys for those receiving the training, and all quick polls were completed in person using paper and pencil methods. Four and 8 month CFR follow-up surveys were completed using either an internet survey emailed to participants or a paper and pencil survey mailed to participants with a stamped return envelope, based on respondent preference. Figure 1 on the following page displays the study design.

Figure 1. Study Design and Measurement Protocol

Intervention ries:
Hutchinson (rural)
Kansas City (urban)

Community First Responders:
1) Pre-Intervention Survey
2) Receive Training
3) Post-Intervention Survey
4) 4- and 8-month Follow-up Surveys

KSARNG Service Members:
1) Pre-Test Quick Poll
2) 4- and 8-month Follow-up Quick Polls

Control Armories:
Mahattan (rural)
Wichita (urban)

Community First Responders:
1) Pre-Intervention Survey
4) 4- and 8-month Follow-up Surveys

KSARNG Service Members:
1) Pre-Test Quick Poll
2) 4- and 8-month Follow-up Quick Polls

IRB approval for this study was received in May 2012 from Montana State University. The protocol was then submitted for ORP HRPO review in June 2012. The initial administrative review resulted in a request for documents. The response, revisions, and requested documentation were submitted and IRB reapproval for this study and ORP HRPO final approval were received in March 2013. Implementation of phase two of the study was then initiated.

Identify training sites and recruit training participants
WICHE consulted with the Expert Panel and the KSARNG to identify the four Armory communities that participated in the project, as well as the individuals who were recruited to receive the training. Based on initial conversations with the KSARNG, the project identified two rural sites—Hutchinson and Manhattan—and two sites urban sites—Kansas City and Wichita. Once the rural and urban sites were selected, the project team randomly assigned one site from

each pair to serve as the intervention site and the other sites to serve as the matched controls. Figure 2 displays a map of where the study sites were located.

Figure 2. Map of Kansas with the study sites indicated

**Kansas Army National Guard
Intervention and Control
Armory Communities**

Manhattan ▪
(Rural control)

Kansas City ▪
(Urban intervention)

▪ **Hutchinson**
(Rural intervention)

▪ **Wichita**
(Urban control)

Once the selection of sites was complete, the Expert Panel and its KSARNG representatives helped determine who within and surrounding the KSARNG Armories were CFRs to target for study recruitment. Initial discussions highlighted the utility of training individuals such as embedded medics, KSARNG leaders who are open to the training, employers in the Armory communities, family advocates (especially those organizations that have already expressed a need for training), and other community-identified supports/helpers. The Kansas National Guard identified approximately thirty military CFRs for each of the intervention communities. These Guard Members were on duty at the time and therefore funds had to be budgeted by the Kansas Guard to account for their time spent on the project. In addition to Guard Members, we sought to recruit an equal number of civilian CFRs for each community. Local and statewide organizations and contacts were also engaged to recruit study participants. Recruitment activities included meeting with key National Guard personnel, email outreach and phone calls, all using the approved scripts for the study protocol.

Registration for the training was on a first-come, first-served basis. National Guard members were prohibited by the IRB from receiving compensation for completing the surveys, whereas non-National Guard CFRs were offered a $15 gift card for the completion of each survey. Based on the pilot trainings conducted in Arizona, which were filled to capacity and offered no compensation to participants, we did not anticipate any concerns with recruiting the maximum number of civilian CFRs, especially since the study would provide a $150 stipend to all eligible civilian participants. Unfortunately, despite consistent recruitment efforts leading up to the study, it was difficult to recruit the maximum number of CFR subjects. While recruitment numbers fell below expectations, there were sufficient numbers to execute the study activities and those CFRs who participated were a good representative sample of the intended audience for the training (a mix of military members and civilians with support roles to military personnel and families).

We were able to recruit 69 CFRs into the intervention group and 107 into the control group pre-intervention. Though these sample sizes were promising, we were unable to retain a substantial

portion of the control group, with only 18 individuals returning 4 and 8-month follow up surveys from the control group (~17% return rate) compared to 47 individuals in the intervention group (~68% return rate).

In addition to the CFRs, KSARNG personnel were randomly selected from the general KSARNG population present at drill weekends during data collection to participate in the pre-test, 4-month and 8-month quick poll surveys. The quick polls were completely anonymous and did not necessarily survey the same KSARNG personnel across each time point. Instead they served as a point in time poll of the Armory's general population. The only criterion for inclusion was that the individual be KSARNG personnel assigned to one of the four Armory sites chosen to participate in the study. 116 Guard Members from intervention armories (where CFRS received m-MHFA training) and 155 from control armories (where CFRs did not receive the m-MHFA training) were surveyed at pre-test; 104 from intervention and 179 from control armories at 4 months; and 123 from intervention and 63 from control armories at 8 months.

Organize and conduct trainings

Trainings were organized in coordination with the Kansas National Guard, and held in their facilities. A total of four trainings were conducted from May – July 2013 in the intervention armory communities (two in Kansas City and two in Hutchinson). Each training had two instructors. There was one instructor who conducted all four trainings for continuity, along with a second trainer that varied. Before each training, informed consent was collected from all participants and baseline survey data collected. At the conclusion of each training, survey and evaluation data were collected. The trainings were well received by study participants.

Additional study data

In May 2013, the quick poll surveys were administered to the National Guard members within each of the four armory communities. Baseline surveys were also administered to CFRs in the two control armory communities (Wichita and Manhattan). Informed consent was collected from all subjects prior to completing surveys for the study.

Collect post-training data

Post-training data collection, including CFR surveys and quick poll surveys at 4-months and 8-months post-training, was scheduled to be collected in October 2013 and February 2014, subject to the drill schedule of the Kansas National Guard for the quick poll. Due to the government shutdown, drill for October 2013 was canceled, resulting in a delay in the first set of post-training data collection, which ended up taking place in December 2013/January 2014. Data collection included on-site quick poll surveys in all four armory communities and an online survey by CFRs, with contact made by email and by phone. The second set of data collection for the on-site quick poll surveys took place in June-July 2014. The second set of CFRs survey collection took place in July – September 2014. Note that the follow up surveys are referenced as 4- and 8-months in this report.

Conduct initial analyses

Preliminary analyses included psychometric analyses of the surveys to establish the statistical properties of the surveys and identify the best functioning items in preparation for analysis. Following analyses of the measures we conducted a series of statistical tests to check for equivalence between urban and rural armories and successful training implementation. Because we matched the control groups on urban-rural designation, it was important for us to first determine whether it would be necessary to account for urban-rural group differences in

final analyses. Independent samples t-tests were conducted to test for differences between urban and rural armories on stigma, coping, knowledge, and opinions from the quick poll at pre-test. We focused only on the quick poll data as the data set is larger and selection was completely random, making it the best data set for testing community-level equivalence across key variables that might influence the program outcomes.

The final set of preliminary analyses tested for fidelity of implementation with paired-sample t-tests of stigma, confidence, knowledge, attitudes, and practice behaviors among CFR trainees pre-test to immediate post-intervention. This analysis was completed to provide a check that the program was developed and implemented in a fashion that could produce the results expected from prior research on MHFA. This is also a form of manipulation check to make sure that observed differences in final analysis could be traced to the manipulation (receiving vs. not receiving the training) as opposed to some other external and unmeasured factor.

CFR Survey. The CFR survey included items to assess confidence, attitudes, knowledge, stigma, and behaviors using a 5-point Likert scale from strongly disagree to strongly agree. The 23 Likert-scaled items were factor analyzed to test the scale construction and exclude poorly functioning items. First, principal axis exploratory factor analysis was conducted using direct oblimin rotation to allow items to load on multiple factors. This factor analysis identified the primary factors, as well as potential items to exclude from analyses due to either not loading on any factor or loading significantly on multiple factors. This analysis indicated that a four factor solution was strongest, identifying scales for confidence, attitudes toward mental health treatments, knowledge of mental health resources, and MHFA practice behaviors. Six items were identified for exclusion from these scales, and subsequently a second principal axis factor analysis was completed on the remaining 17 items using varimax rotation to minimize cross-loading of items. This analysis confirmed the stability of the four identified scales. Additional preliminary evidence of construct validity was confirmed by moderately strong and significant correlations between all scales and the stigma item (r-values between .2 and .5).

Confidence. Self-perceived ability to help people with a mental health problem was assessed with four items. The items ask respondents about their confidence in: (1) recognizing problems, (2) knowing what to say and (3) do, and (4) their knowledge of mental illness. Reliability for this scale was sufficient (α = .78).

Attitudes. Attitudes towards mental health treatments was assessed with three items assessing (1) belief that counseling is helpful; (2) belief that medications are helpful; and (3) belief that people can get better with help. Reliability was sufficient (α = .70).

Knowledge. The majority of items excluded from analysis were originally intended for a longer scale assessing both knowledge of specific mental health issues and resources. However, two of these items were highly related to confidence and cross loaded without clearly belonging to one of the scales, two of the items were reverse worded and appeared to load on a separate method factor, and two of the items did not load strongly on any factor. The remaining four items more specifically assessed knowledge of mental health resources, including knowledge of (1) at least two resources in the National Guard; (2) at least two resources in the community; (3) the phone numbers for one or more crisis line; and (4) at least two trusted resources to refer someone to. Reliability for this four-item scale is sufficient (α = .76).

Practice behaviors. To assess the use MHFA practices, respondents were asked to rate whether they were likely to use specific practices. Practice behaviors assessed include: (1) reaching out and talking; (2) asking about suicidal thoughts; (3) listening; (4) offering basic first

aid information; (5) assisting in seeking professional help; and (6) assisting in connecting with supports. Reliability for this scale was strong (α = .86).

Stigma. Although no scale for either public or personal stigma was included, a single item on the CFR survey is used as a proxy for measuring stigma towards mental illness: "People are generally supportive when a person is experiencing stress and related mental health issues." Due to the positive wording of this item, higher scores are indicative of lower levels of stigma. This item most closely matches Link's modified labeling theory and devaluation subscale for assessing stigma and its impacts on people's willingness to seek or offer help [8, 9]. Link's research on devaluation suggests that people who respond more negatively to this question, or similar questions, are less likely to seek help and more likely to engage in secretive behaviors. Such research suggests that people who score low on this one item will similarly be less likely to openly discuss mental health issues with someone they see who may be struggling. This theory regarding our proxy measure is confirmed by the item having significant correlations with confidence (r = .23, *p* = .003), knowledge (r = .28, *p* = .000), and practice behaviors scales (r = .28, *p* = .000).

Quick Poll. The quick poll anonymous survey for KSARNG service members included 15 Likert scaled items on a scale from strongly disagree to strongly agree. These 15-items were factor analyzed following the same procedures as the CFR survey to identify the best functioning items and group the items into psychometrically sound scales for subsequent analysis. Based on this analysis four scales were identified—stress, coping resources, knowledge of resources, and opinions towards help seeking—as well as the single item proxy for stigma. Additional preliminary evidence of construct validity was confirmed by moderately strong and significant correlations between all scales and the stigma item (r-values between .2 and .5).

Stress. Stress was assessed with two items: (1) military and/or job related stress; and (2) family stress. Reliability is marginally acceptable for evaluation purposes (α = .66), though the relatively low alpha is likely a factor of the scale only employing two items.

Coping. Coping resources assessed a person's perception of the availability of resources to help them cope with mental or emotional challenges and their perception of the availability of helping support. The four items included: (1) having positive coping strategies to deal with stress; (2) peers in the KSARNG having positive coping strategies available; (3) having a support network to help solve problems; and (4) peers in the KSARNG having a support network to help solve problems. Reliability for this scale was sufficient (α = .79).

Knowledge. Knowledge of resources for mental health treatment was assessed with five items, including knowledge of (1) where to refer someone if they ask for help; (2) mental health resources within the National Guard; (3) mental health resources in the community outside of the National Guard; (4) crisis resources in the community; and (5) at least two trusted resources to refer a friend or family member to. Reliability for this scale was strong (α = .86).

Opinions. Opinions towards help seeking was assessed with three items: (1) it's good for someone experiencing stress or mental health issues to seek help; (2) believing counseling is helpful; (3) it's helpful for people experiencing stress or mental health issues to use the available resources. Reliability for this scale was strong (α = .82).

Stigma. Stigma was again assessed using a one-item proxy for devaluation: "People are generally supportive when a person is experiencing stress and related mental health issues."

Urban-Rural Group Equivalence. Table 1 displays the means and standard deviations for the urban and rural groups on stigma, attitudes, coping resources, and knowledge at pre-test, and table 2 displays the t-test results. No significant differences were evident between the urban and rural armories prior to intervention on stigma, $t(268) = .68$, $p = .50$; attitudes towards help seeking, $t(269) = -.83$, $p = .40$; coping resources, $t(269) = 1.14$, $p = .26$; and knowledge of resources $t(269) = -1.75$, $p = .08$). These results indicate that the Urban and Rural armories do not differ statistically on key variables which could distort the results if not accounted for. Given the lack of statistical difference, we can confidently proceed with analyzing the data set without needing to account for urban and rural differences.

Table 1. Pre-Intervention Quick Poll means and standard deviations for stigma, attitudes, coping, and knowledge.

	Urban / Rural	N	Mean	Std. Deviation
Stigma	Urban	108	3.58	1.02
	Rural	162	3.50	.97
Attitudes Toward Help Seeking	Urban	108	3.95	.82
	Rural	163	4.03	.67
Coping and Support Resources	Urban	108	3.71	.66
	Rural	163	3.61	.74
Knowledge of Resources	Urban	108	3.63	.73
	Rural	163	3.79	.75

Table 2. t-test results for pre-intervention Quick Poll stigma, attitudes, coping, and knowledge

	t	df	Sig. (2-tailed)
Stigma	.68	268	.50
Attitudes Toward Help Seeking	-.83	269	.40
Coping and Support Resources	1.14	269	.26
Knowledge of Resources	-1.75	269	.08

Fidelity Checks. Table 3 displays the means and standard deviations for the behaviors, confidence, knowledge, attitudes, and stigma at pre- and post-training, and table 4 displays the t-test results and effect sizes. Tests of program manipulation and fidelity confirmed that the military MHFA training resulted in significant positive gains in CFRs likelihood of using MHFA practices, $t(61) = -8.43$, $p < .00$; confidence or self-perceived ability to help people in need, $t(61) = -10.74$, $p < .00$; knowledge of mental health resources, $t(61) = -9.87$, $p < .00$; and attitudes towards help seeking, $t(61) = -5.29$, $p < .00$. Additionally, CFRs exhibited significant decreases in stigma, $t(61) = -2.51$, $p = .02$. The effect sizes for the trainings impact on practice behaviors ($d = -2.16$), confidence ($d = -2.75$), knowledge ($d = -2.53$), and attitudes ($d = -1.35$) are all very large based on Cohen's convention of effect sizes larger than .80 being considered large. The effect size for stigma ($d = -.64$) was also meaningful based on the convention of effect sizes between .5 and .8 being considered moderate.

These results confirm prior research indicating the MHFA is an effective method for increasing trainees knowledge of mental health, positive attitudes towards help seeking, and helping behaviors, while also reducing stigma towards mental illness [1, 4]. These results, therefore, suggest that:

(1) the adaptation of traditional MHFA for military populations was successful in replicating the foundational impacts of MHFA;

(2) the trainings were implemented with sufficient fidelity to replicate expect results; and

(3) that observed positive differences between intervention and control groups can be attributed to the manipulation.

Table 3. Descriptive statistics for CFRs pre- and post-training on practice behaviors, confidence, knowledge, and stigma.

	N	Mean	Std. Deviation
Behavior1	62	3.98	.58
Behavior2		4.60	.46
Confidence1	62	3.52	.60
Confidence2		4.32	.42
Knowledge1	62	3.61	.74
Knowledge2		4.49	.47
Attitude1	62	3.93	.63
Attitude2		4.22	.60
Stigma1	62	3.05	.90
Stigma2		3.42	1.00

Table 4. *t*-test results and effect sizes for CFRs pre and post-training

	Mean Difference	t	df	Sig. (2-tailed)	Effect Size
Behavior1 - Behavior2	-.62	-8.43	61	.000	-2.16
Confidence1 - Confidence2	-.81	-10.74	61	.000	-2.75
Knowledge1 - Knowledge2	-.88	-9.87	61	.000	-2.53
Attitude1 – Attitude2	-.30	-5.29	61	.000	-1.35
Stigma1 – Stigma2	-.37	-2.51	61	.015	-.64

Final data analyses

Final data analyses were conducted to develop preliminary evidence of the efficacy of the program at both individual and community levels. We conducted a series mixed between-within subjects ANOVAs comparing the intervention and control group on CFR results longitudinally at three time points: pre-test, at 4-months, and at 8-months. Mixed ANOVAs and examination of descriptive statistics provide simple analytic solutions for identifying trends and preliminary evidence of efficacy, as well as expected effect sizes, in preparation for a more robust study. A mixed ANOVA as implemented here tests the null hypothesis that there is no significant interaction between time (three repeated measures) and intervention grouping (intervention vs. control) on the identified dependent variables. In addition to the mixed ANOVAs, we also conducted repeated measures ANOVAs on data from CFRs who received the training to confirm whether the intervention resulted in significant changes within the intervention group.

The analysis of CFR results was conducted prior to an analysis of quick poll data because the CFR results are the most proximate to the intervention. We conducted a 2 x 3 factorial ANOVA with the quick poll data to test for community-level outcomes as an interaction between time (3-levels: pre-test, 4-months, 8-months) and armory group (2 levels: intervention (intervention and control armories). Any results observed in the quick poll data must be interpreted within the context of CFR results as these outcomes are distal, community-level impacts and depend on successful results at the individual CFR level to be theoretically linked to the intervention.

Community First Responder Intervention Effects. Table 5 displays the results from the mixed between-within subjects ANOVA comparing intervention and control groups on behavior, confidence, knowledge, attitudes, and stigma across three time points (pre-intervention, 4-months post intervention, and 8-months post-intervention). Main effects for time (repeated measures) for confidence, knowledge, attitudes, behaviors, and stigma are reported in Table 5, but are not of interest for the study as they test for change over time across the entire sample without distinguishing between intervention and control groups. The interaction effects between time and intervention group on knowledge, attitudes, and stigma were all non-significant. For knowledge, attitudes and stigma the observed effect size was small but meaningful (η^2 = .03 for knowledge; η^2 = .02 for attitudes; η^2 = .02 for stigma). There was a non-significant interaction effect between time and intervention group for confidence that despite non-significance was trending towards significance and displayed a meaningful and moderate effect size, F (2) = 2.98, p = .06, η^2 = .06. Finally, there was a significant interaction effect between time and intervention group for practice behaviors, F (1.75) = 3.94, p = .03, η^2 = .07, indicating that the intervention had an observable and meaningful impact on the likely hood of using MHFA practices.

Table 5. Main effects of time and interaction effects of time by intervention group for mixed between-within subjects ANOVA of CFR results.

	Measure	F	df	Sig.	Partial Eta Squared	Observed Power[a]
Time	Confidence	14.36	2	.00	.22	.99
	Knowledge	10.40	2	.00	.17	.99
	Attitudes	1.93	2	.15	.04	.39
	Behaviors[b]	1.84	1.75	.17	.04	.34
	Stigma	3.38	2	.04	.06	.63
Time * IntGroup	Confidence	2.98	2	.06	.06	.57
	Knowledge	1.61	2	.21	.03	.33
	Attitudes	.83	2	.44	.02	.20
	Behaviors[b]	3.94	1.75	.03	.07	.64
	Stigma	1.23	2	.30	.02	.26

a. Computed using alpha = .05

b. *Results for Behavior apply the Greenhouse-Geisser correction for violations of sphericitiy. Other variables did not violate sphericity and the results reported do not employ the correction.*

The small but meaningful effect size for knowledge, attitudes, and stigma indicates that improved measurement precision and a greater sample size could lead to identification of significant intervention effects over time. Likewise for confidence the effect size is moderate indicating that an adequately powered randomized controlled trial would likely demonstrate a significant positive effect of the intervention over time compared to the control group.

Table 6 (placed in the Appendix due to the length of the table) displays the descriptive statistics and Figure 1 displays the estimated marginal means across each time point comparing intervention and control groups for each variable. It is critical to turn to the means to determine the direction of change In order to interpret the results. In the case of practice behaviors, the means for the intervention group rises dramatically from pre-intervention to 4-months post and then remains stable through 8-months post intervention. In contrast, the control group actually begins with higher mean practice behaviors than the intervention group, but the mean scores are fairly stable with a slight decline over time. At 8 months post intervention the intervention groups mean practice behaviors are greater than the control group. The visual representation of these differences provided in the chart of practice behaviors in Figure 1 shows just how dramatically different a pattern of change there is between the intervention and control group over time. These results with the statistically significant ANOVA indicate that the intervention positively impacted CFRs MHFA practice behaviors relative to a control group.

For confidence, the trend is similar for the intervention group with means rising from time 1 to time 2, then remaining relatively stable to time 3. For the control group, confidence rises from time 1 to time 2, but then falls from time 2 to time 3. As with practice behaviors, these results point towards a positive intervention impact on confidence when compared to a control group.

For resource knowledge, the means for both the intervention and control group rise from time 1 to time 2, but then are relatively stable. For attitudes, both groups start with similar scores and conclude with similar scores, with the intervention group's attitudes improving more immediately than the control group. These results, coupled with the non-significant ANOVAs, indicate that there may not be an intervention effect for knowledge of resources and attitudes towards help seeking when compared to a control group. For knowledge and attitudes, the control group is showing similar change over time, suggesting that there may be some other confounding variable in the KSARNG that is driving change in these variables. For example, if there was an effort external to this study to increase awareness of mental health resources, then both knowledge and attitudes may be impacted in all communities irrespective of this intervention. In these cases, we cannot definitively conclude what the cause of the observed changes is.

With stigma, the intervention group's mean score increases steadily over time indicating a reduction in stigma, but the intervention group starts off with greater stigma towards mental illness than the control group. In contrast, the control group's mean score decreases a small amount at each time, suggesting a possible trend towards increasing stigma for CFRs who did not receive the intervention. Despite the non-significant ANOVA, the trend displayed in the growth chart for stigma suggests that the intervention is having a positive impact on reducing stigma despite a trend in the control group of increased stigma over time. In other words, the intervention may be turning the curve completely on stigma—whereas the trend in the KSARNG without the intervention is increasing stigma, this intervention may actually switch the direction of change towards reduced stigma.

Visual inspection of the growth charts for each variable confirms that there are differences in how the intervention group changed on each variable compared to the control group.

Figure 1. Growth charts for each variable of change overtime comparing intervention and control groups.
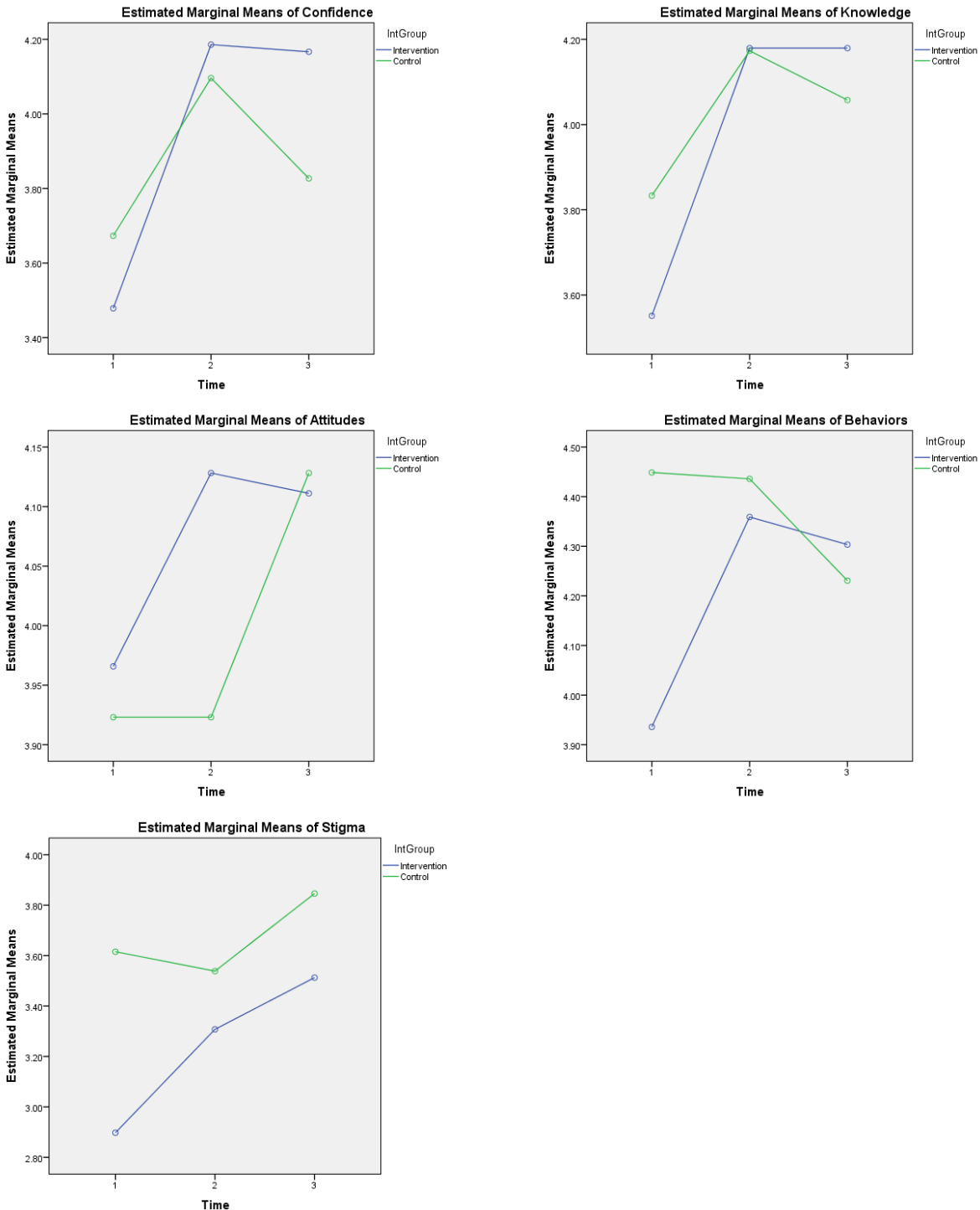
Although the mixed ANOVAs did not provide conclusive evidence of the intervention's impact, the effect sizes and descriptive statistics and charts indicate a trend towards efficacy. To further test whether the positive trends of CFRs improving on each variable over time represent

meaningful and significant differences, we conducted repeated measures ANOVAs on each variable over time for only the intervention group. As the response rate for CFRs in the intervention condition was strong, the resultant power of these analyses is likewise strong.

Table 7 displays the results of the one-way repeated measures ANOVAs for CFR trainees on confidence, knowledge, attitudes, behaviors, and stigma. The repeated measure ANOVA tests the null hypothesis that there is no difference across the repeated measures. For all variables except attitudes, there were statistically significant positive effects over time. Post hoc tests (Table 8) comparing each individual time point to the other two (i.e., t1-t2, t2-t3, and t1-t3), indicate that there are statistically significant gains in confidence, knowledge, behaviors, and stigma from pre-intervention to 4 months post intervention and from pre-intervention to 8 months post intervention, with no statistically significant difference between 4 months and 8 months post. These results indicate that the CFRs showed improvements in their confidence, knowledge, and behaviors and decreases in stigma from pre-intervention to post-intervention, with those changes being sustained and stable through to 8-months post-intervention.

For attitudes, on the other hand, there were no significant effects detected. Although difficult to know exactly why this is the case, we believe that there may be a bit of a ceiling effect. This is to say, that attitudes towards mental health treatments were positive to begin with, and did not shift dramatically over the course of the study. It may be that people generally believe that mental health treatment works, and that receiving the m-MHFA intervention does not change this already positive attitude.

In assessing pilot study data it is further paramount to assess the effect sizes in order to properly design a fully powered study. For confidence (η^2 = .49), knowledge (η^2 = .39), behaviors (η^2 = .27), and stigma (η^2 = .16) the effect sizes are large, with conventions indicating that η^2 > .13 is a large and meaningful effect. Although there was no significant effect detected on attitudes, the effect size is non-the-less moderate with a low observed power, suggesting that a better powered study and/or greater measurement precession may lead to a detectable effect on attitudes towards help seeking as well.

Table 7. One-way repeated measures ANOVAs for CFR trainees at pre-intervention, 4 months post, and 8 months post

Measure	F	df	Sig.	Partial Eta Squared	Observed Power[a]
Confidence	36.95	2	.00	.49	1.00
Knowledge	24.26	2	.00	.39	1.00
Attitudes	2.32	2	.11	.06	.46
Behaviors	13.95	2	.00	.27	.99
Stigma	7.46	2	.00	.16	.93

a. Computed using alpha = .05

Table 8. Post-hoc comparisons with Bonferroni correction

Measure	(I) Time	(J) Time	Mean Difference (I-J)	Std. Error	Sig.[b]
Confidence	1	2	-.71*	.10	.00
		3	-.69*	.10	.00
	2	1	.71*	.10	.00
		3	.02	.08	1.00
Knowledge	1	2	-.63*	.11	.00
		3	-.63*	.12	.00
	2	1	.63*	.11	.00
		3	.00	.08	1.00
Attitudes	1	2	-.16	.08	.14
		3	-.15	.09	.32
	2	1	.16	.08	.14
		3	.02	.08	1.00
Behaviors	1	2	-.42*	.09	.00
		3	-.37*	.10	.00
	2	1	.42*	.09	.00
		3	.06	.07	1.00
Stigma	1	2	-.41*	.15	.03
		3	-.62*	.15	.00
	2	1	.41*	.15	.03
		3	-.21	.18	.82

Based on estimated marginal means
*. The mean difference is significant at the .05 level.
b. Adjustment for multiple comparisons: Bonferroni.

Quick Poll Results. To test for potential community-level impacts, we conducted 2x3 factorial ANOVA s of stress, coping resources, knowledge, attitudes, and stigma. Data for the quick polls was taken from random samples of Guard members present at drills during data collection—as such, the quick polls from the intervention armory do not provide data on people who received the training, but function as a measurement of general community attitudes. Time (three measurements at pre-test, 4-months, and 8-months) and Intervention Group (intervention or control armory) were the fixed factors, and the interaction of time and intervention group tests the null hypothesis that there is no significant difference on the dependent variables over time and across intervention groups. The test asks whether the training of CFRs impacted general community attitudes and experiences.

Table 9 displays the results from the 2 x 3 factorial ANOVAs. Significant interaction effects were identified for coping, $F_{(2)} = 3.02$, $p = .05$, $\eta^2 = .01$, knowledge, $F_{(2)} = 7.93$, $p < .00$, $\eta^2 = .02$, and attitudes, $F_{(2)} = 3.81$, $p = .02$, $\eta^2 = .01$. However, inspection of the interaction charts comparing change over time between the intervention and control groups shows that the significant effects are not detecting a more positive intervention effect compared to the control group. In complete contrast to the hypotheses, the interaction charts displayed in Figure 2 show
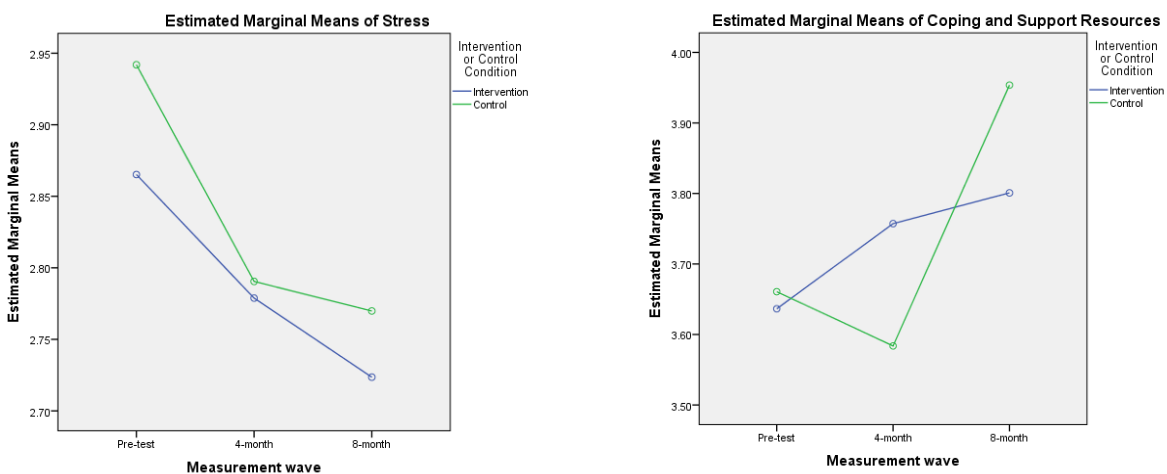
that Guard members from control armories appear to have changed more for the positive than those from intervention armories. For this reason, we can reject the null hypothesis for three of the variables, but have not been able to identify any community-level intervention effects. The changes over time may well indicate a general improvement in community climate towards mental illness in the KSARNG over the course of the study.
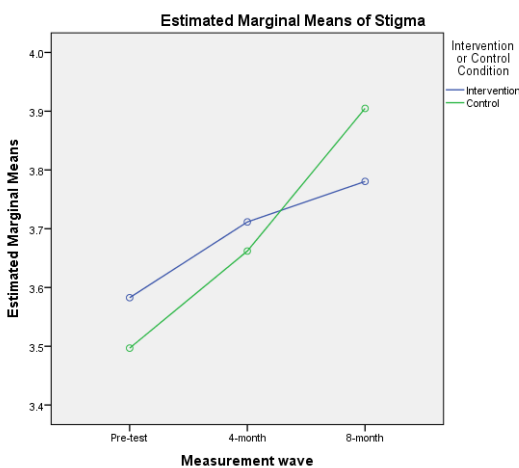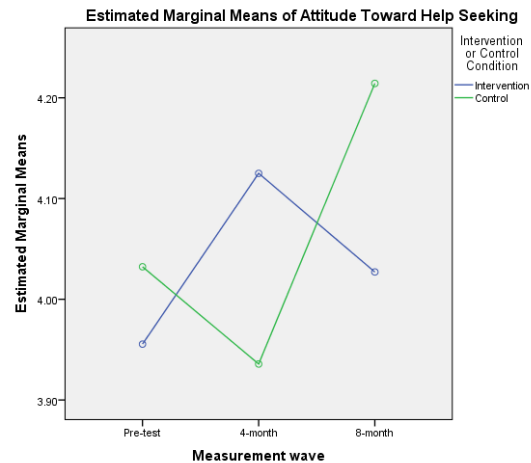
Table 9. Interaction effects for Intervention Group by Time for Quick Poll 2 x 3 factorial ANOVA

	df	F	Sig.	Partial Eta Squared	Observed Power[a]
Stress	2	.06	.94	.00	.06
Coping and Support Resources	2	3.02	.05	.01	.58
Knowledge of Resources	2	7.93	.00	.02	.95
Attitudes towards help seeking	2	3.81	.02	.01	.69
Stigma	2	.67	.51	.00	.16

a. Computed using alpha = .05

Figure 2. Interaction charts for Intervention Group by Time for Quick Poll 2 x 3 factorial ANOVA

Estimated Marginal Means of Knowledge of Resources

Estimated Marginal Means of Attitude Toward Help Seeking

Estimated Marginal Means of Stigma
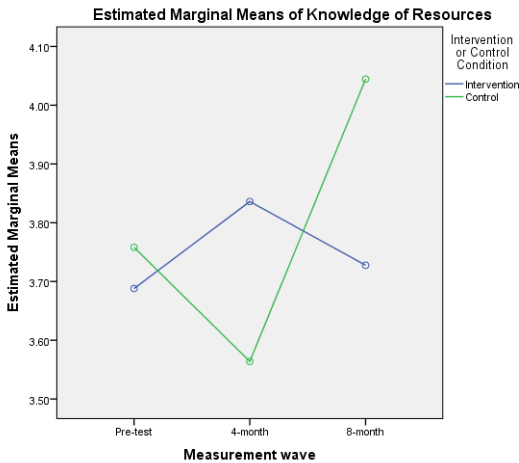
Present data to Expert Panel and Obtain Feedback

A draft of the research report was sent to the Expert Panel on 10/17/2014. Comments were received back from the Expert Panel on 10/23/2014, and feedback was incorporated into the final report.

Plan larger military clinical trial

The results of this study must be taken as preliminary tests of both efficacy and research feasibility. In particular, the study is underpowered for testing for interaction effects on time and intervention group across all dependent variables among the CFRs. In particular, there were insufficient numbers of CFRs at follow-up data collection to draw conclusive conclusions as to whether the intervention had positive impacts when compared to people in a control group. However, one way repeated measures ANOVA with the intervention group only did demonstrate significant results. Taken together, the trends in the mixed ANOVAs and the significant results from the repeated measures ANOVAs, the results show promise that given a larger study we should be able to detect significant intervention effects. These results also indicate that the study design is also a feasible method for detecting intervention results.

Given the opportunity for a larger study, we would recommend a greater number of armories and a cluster randomized design. With 20 or more sites and 30-50 CFRS trained per site we would have sufficient randomization and power to detect intervention effects. Furthermore, we would recommend modifying the survey to employ more standardized measures, in particular for assessing stigma. This would increase the measurement precision and thereby our ability to

detect effects. The power of such a larger study would also permit the use of more conclusive statistical tests to compare growth in variables over time and across groups using hierarchical linear modeling techniques controlling for the cluster randomized design.

Finally, we would recommend either a more in-depth participatory research design, or a study with regular army units. In order to test this intervention for Guard Members and/or veterans, we would recommend greater community engagement with non-Guard community members joining the advisory committee for the study. Participatory research processes would enhance our ability to engage the local communities surrounding and supporting Guard armories, recruit more natural helpers from outside of the Guard, and increase community penetration of the intervention. Conversely, a study with regular army units would present a more controlled environment in which to test the intervention. Such controlled environments would allow us great ability to saturate intervention communities and track potential confounding initiatives in control communities. However, there are significant cultural differences and barriers potentially present in regular units with respect to stigma and career concern that may operate very differently than with the Guard. Further, the original goal of this intervention was to be able to leverage the wide-spread MHFA network of trainers to meet the specific needs of Guard and Reserve members and veterans who are living in nearly every community in the country.

KEY RESEARCH ACCOMPLISHMENTS

- Finalization of the adapted military Mental Health First Aid curriculum.
- Roll out of adapted curriculum to the nationwide network of Mental Health First Aid trainers.
- Demonstration of acceptability of the intervention among National Guard members.
- Demonstration of feasibility of providing trainings to National Guard members and civilians.
- Demonstration of feasibility of research methods and measures.
- Significant improvement that was sustained to 8months post training in knowledge, attitudes, behaviors, confidence, and stigma among CFRs trained in m-MHFA.
- Significant intervention effect in the likelihood of using MHFA practice behaviors among CFRs who received the training when compared to the control group.
- Small to moderate and meaningful effect sizes for the difference between CFRs who received the training and the control group indicating meaningful change over time as a result of the intervention.

CONCLUSION

The adaptation process for the Mental Health First Aid curriculum implemented during the first year of this study has the potential for significant impact on the military/veteran population across the country. The National Council for Behavioral Health manages dissemination of the MHFA curriculum throughout the United States. There are now more than 30,000 instructors throughout the country. Once those who are qualified to teach the adaptation complete the process to receive this designation, there is the potential to reach a significant number of service members, veterans, and their families nationwide. The military Mental Health First Aid curriculum has the potential to complement existing military programs such as resilience training, Combat & Operational Stress First Aid, and suicide prevention gatekeeper training by providing a mental health literacy component that is currently not addressed.

Despite the promise of m-MHFA to have substantial and meaningful impacts, the results of this study remain preliminary. The study was underpowered to detect true intervention effects due to small sample sizes, especially within the control group at follow-up measurement times. A larger

number of participants would provide not only greater power, but would allow for more sophisticated longitudinal analyses that would be better able to detect group differences in change over time. Furthermore, the study design was not fully randomized—with only four armories there was not a large enough number of clusters for the cluster randomization approach to be meaningful. From a statistical standpoint hierarchical models accounting for the clusters demand far more clusters for adequate power. Therefore, we caution that these results be taken only as preliminary evidence.

We were unable to meaningfully measure community-level impacts. This may be due to inadequate measurement strategies or due to the distal nature of community-level impacts. Given the training of a relatively small number of people, it is unlikely to see changes in the larger community's attitudes and resources. The observed effect sizes for the trainees relative to the control group were all small to moderate, hence it is logical to assume that such small effects among 25 people per community would result in even smaller community-levels effects. Detecting such effects would take greater saturation of the community with trained CFRs (that is, more trainings), very precise and reliable measurement techniques, large sample sizes, and observation over a longer period of time.

One troubling aspect, however, of the community-level outcomes was a trend showing that the control group had equal or greater gains on all variables of interest. This suggests that other awareness and education efforts and natural changes within the National Guard may be fully accounting for observed growth in community attitudes. In future studies it will be critical to track and measure what other mental health interventions are going on over the course of the study to better account for these potential confounds. The current results, though, suggest that the m-MHFA intervention may be no more effective at enhancing community-level outcomes than other ongoing efforts.

With respect to the more proximate outcomes comparing CFRs who received the training to those who did not, we have more promising results to report. Across all variables we measured from pre-intervention to 4-months and 8-months later, the intervention group displayed statistically significant improvements and moderate to large effects. When compared to the intervention group though, most of these effects were no longer significant. Again, the control group also showed improvement over time on most variables, though often to a lesser magnitude. Further, the control group in general had greater knowledge, attitudes, behaviors, and confidence and less stigma relative to the intervention group at the beginning of the study. This indicates that the control group may very well have been biased and that the randomization strategy may have been inadequate.

The final sample size and bias in the control group were likely results of a number of methodological challenges we encountered in carrying out the study. First, the original proposed study included more significant community engagement with the communities surrounding the armories and stronger recruitment of non-Guard CFRs. Ultimately, the funding was insufficient for a greater community engagement effort, which lead to lower-that-hoped for recruitment of non-Guard participants, as well as resulted in an inability to retain control group participants as we were unable to offer any incentive for them to stay engaged over the course of the study. Second, we had also intended to collect more data employing well-researched measurement scales, as well as administrative data on mental health referrals and access to services. However, through negotiations with the Guard we had to change our measurement strategy and lost the measurement precision of using a more in-depth data collection survey. We also ran into numerous delays that made it impossible for us to have the time necessary to access administrative data. Finally, the Guard also disallowed our ability to offer Guard participants a small stipend for completing surveys, which may have also contributed to the low response

rates at 4- and 8-month follow up. Future research will need to carefully take into account the true time it takes to work with military structures in carrying out research, as well as budget for stronger community engagement and research participant retention strategies.

Despite the challenges due to small samples, new measures and lack of true randomization, the study proved adequate for providing preliminary evidence that m-MHFA is an impactful intervention. First, and most critically, there was a significant intervention effect detected for the likelihood that a CFR would use appropriate engagement, support, and referral practices when identifying someone in need of mental health support. Second, there was a clear trend showing a similar effect for confidence in helping someone in need. And third, for all the other three measured variables—knowledge of mental health resources, attitudes towards help seeking, and stigma—there were positive growth trends in the data and small but meaningful effect sizes that clearly indicate that with more power (a larger number of participants and armories) we would expect to see significant intervention effects. These results can be interpreted as positive preliminary evidence of program's effects.

In order to establish program efficacy a follow-up cluster randomized study with a larger number of clusters (at least 20 armories/communities) and a larger number of participants (25-50 per site) is warranted. We anticipate that such a study would clearly establish m-MHFA's efficacy at improving mental health literacy, mental health first aid practice behaviors, and attitudes towards help seeking and would reduce stigma. In a follow-up study we would recommend slightly modifying the measures for CFRs to improve measurement precision and include other measures of mental health status, as well as developing stronger methods for assessing community level impacts. Given our experience on this study, however, we would still recommend keeping the surveys brief so as to be feasible and acceptable to conducting research with military populations. To assess community level impacts, it will be critical to access administrative records, public health systems data, and electronic health data from major providers in the served communities. Polling the armories' general population did not prove useful in this study, but if targeted towards brief measures of attitudes and stigma may still be a useful approach if we can track individuals over time and have greater control over the study conditions.

Finally, it will also be essential to employ stronger methods for retaining research participants in any future study. In the current pilot study, attrition among the control group had detrimental effects on the retention of participants and statistical power, as well as being a likely source of bias. In this study we were prohibited from offering even small honorariums to National Guard participants for completing the surveys, a technique that is standard practice in similar studies and greatly improves return rates for follow-up surveys. Further, in a larger study we would recommend a wait-list control design so that every CFR, including those randomized to the control group, would receive the training, thereby increasing buy-in and commitment from participants in the control group.

In conclusion, we feel that military MHFA is a promising intervention for increasing knowledge of mental health and related resources, increasing positive attitudes towards help seeking, decreasing stigma towards mental illness, and increasing the likelihood that people will use of effective behaviors when supporting a person in need. Our evidence casts doubt on whether it is feasible to measure more distal community-level outcomes and suggests that natural changes in community climate towards mental illness may have equal or more profound impacts on community attitudes and availability of resources than this intervention. However, for shifting people's attitudes directly, the intervention appears to be an impactful training with a substantial dissemination system in place making it a useful, ready-to-go intervention.

PUBLICATIONS, ABSTRACTS AND PRESENTATIONS

- **Mental Health First Aid for Veterans Press Conference and Stakeholder Briefing** – National Press Club, April 24, 2014
- **Defense Centers of Excellence, Deployment Health Clinical Center (DHCC) Mental Health First Aid panel**, July 9, 2014

INVENTIONS, PATENTS AND LICENSES

Nothing to report.

REPORTABLE OUTCOMES

- Demonstration of acceptability of the intervention among National Guard members.
- Significant improvement that was sustained to 8-months post training in knowledge, attitudes, behaviors, confidence, and stigma among CFRs trained in mMHFA.
- Significant intervention effect in the likelihood of using MHFA practice behaviors among CFRs who received the training when compared to the control group.
- Small to moderate and meaningful effect sizes for the difference between CFRs who received the training and the control group indicating meaningful change over time as a result of the intervention.
- No significant changes in general National Guard armory attitudes and resources.

OTHER ACHIEVEMENTS

Nothing to report.

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APPENDICES

Community First Responder survey
Quick poll survey
Descriptive Statistics From CFR Surveys

Table 6. Descriptive statistics of CFR Surveys

	IntGroup	Mean	Std. Deviation	N
Confidence: Pre-intervention	Intervention	3.48	.70	39
	Control	3.67	.33	13
	Total	3.52	.63	52
Confidence: 4-Month Follow-up	Intervention	4.19	.47	39
	Control	4.10	.54	13
	Total	4.16	.49	52
Confidence: 8-Month Follow-up	Intervention	4.17	.74	39
	Control	3.83	.93	13
	Total	4.08	.79	52
Resource Knowledge: Pre-intervention	Intervention	3.55	.79	39
	Control	3.83	.50	13
	Total	3.62	.74	52
Resource Knowledge: 4-Month Follow-up	Intervention	4.18	.73	39
	Control	4.17	.45	13
	Total	4.18	.67	52
Resource Knowledge: 8-Month Follow-up	Intervention	4.18	.79	39
	Control	4.06	1.06	13
	Total	4.15	.86	52
Attitudes: Pre-intervention	Intervention	3.97	.64	39
	Control	3.92	.63	13
	Total	3.96	.63	52
Attitudes: 4-Month Follow-up	Intervention	4.13	.51	39
	Control	3.92	.68	13
	Total	4.08	.56	52
Attitudes: 8-Month Follow-up	Intervention	4.11	.77	39
	Control	4.13	1.01	13
	Total	4.12	.83	52
Practice Behaviors: Pre-intervention	Intervention	3.94	.72	39
	Control	4.45	.50	13
	Total	4.06	.70	52
Practice Behaviors: 4-	Intervention	4.36	.56	39

	IntGroup	Mean	Std. Deviation	N
Confidence: Pre-intervention	Intervention	3.48	.70	39
	Control	3.67	.33	13
	Total	3.52	.63	52
Confidence: 4-Month Follow-up	Intervention	4.19	.47	39
	Control	4.10	.54	13
	Total	4.16	.49	52
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	Control	3.83	.93	13
	Total	4.08	.79	52
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	Control	3.83	.50	13
	Total	3.62	.74	52
Resource Knowledge: 4-Month Follow-up	Intervention	4.18	.73	39
	Control	4.17	.45	13
	Total	4.18	.67	52
Resource Knowledge: 8-Month Follow-up	Intervention	4.18	.79	39
	Control	4.06	1.06	13
	Total	4.15	.86	52
Attitudes: Pre-intervention	Intervention	3.97	.64	39
	Control	3.92	.63	13
	Total	3.96	.63	52
Month Follow-up	Control	4.44	.48	13
	Total	4.38	.54	52
Practice Behaviors: 8-Month Follow-up	Intervention	4.30	.74	39
	Control	4.23	1.07	13
	Total	4.29	.82	52
Stigma: Pre-intervention	Intervention	2.90	.94	39
	Control	3.62	.87	13
	Total	3.08	.97	52
Stigma: 4-Month Follow-up	Intervention	3.31	1.00	39
	Control	3.54	1.05	13
	Total	3.37	1.01	52
Stigma: 8-Month Follow-up	Intervention	3.51	.94	39
	Control	3.85	1.07	13
	Total	3.60	.98	52

Military/Veteran Mental Health First Aid PowerPoint Slide Deck

SUPPORTING DATA:

Nothing to report.

LIST OF PERSONNEL RECEIVING PAY FROM THE RESEARCH EFFORT
Joanne Brothers
Teryn Irvin
Holly Martinez
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